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SOME EXPERIMENTS ON FRACTURE OF THE RADIUS:—A CASE OF RUPTURE OF THE QUADRICEPS EXTENSOR FEMORIS.

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[Read before the Boston Society for Medical Observation, April 18th, 1864, and communicated for the Boston Medical and Surgical Journal.]

By breaking the radius of a dead subject just above the wrist (Colles's fracture) the forearm at once falls inward on the carpus, and the end and styloid process of the ulna are displaced to the ulnar side; thus demonstrating that this particular deformity, usually observed in Colles's fracture, is not the result of muscular action, but is merely owing to the giving way of the radius, the only connecting bond between the forearm and hand—since the ulna does not enter into the articulation of the wrist. The antero-posterior displacement, usually so marked, is undoubtedly due, however, to muscular action. Abducting the hand forcibly to the ulnar side does not reduce the lateral deformity; and we venture to think that better results will be got where the arm is treated in a straight position—midway, of course, between pronation and supination—and the fingers either left free, or, if confined at all, bent over a Bond's splint. Certainly the semi-prone position will counteract to some degree the influence of the *pronator quadratus*, which draws the upper fragment towards the ulna; and it must not be forgotten that the *supinator brevis*, the natural antagonist of the *pronator radii teres*, is untouched, and still acting normally on the upper fragment; and also that the *biceps*, from its insertion into the tubercle of the radius, assists very considerably in supination. The action of the *supinator longus*, from its insertion into the lower fragment at the styloid process of the radius, is more difficult to control; but extension and reduction of the parts by direct pressure, followed by moderate pressure with pad and bandage over the belly of this broad muscle on its anterior surface, will control it nearly as well as the position of the hand in the pistol-shaped splint; while in the latter position we stretch unnaturally, and often painfully, the ligaments of the wrist, and have sometimes the result of either stiffness, or considerable loss of power in the articulation. Pads or compresses of moderate size and hardness are of course proper to keep the fragments in place. But it must be remembered that next to the danger of deformity from non-reduction, or non-apposition of the fractured bone, is the equally serious danger of stiff and immovable fingers from inflammation of the tendons. As the risk of producing effusion and callus among the flexor tendons is much increased by strong pressure, better use may be obtained—

1st, by bandaging not too tightly, after restoring the fragments into place by pressure and extension.

2d, by leaving the fingers free, and by the early use of passive motion.

We have been struck, in dispensary practice, with the fact, that neglected fractures of the radius often get better use of the fingers, though at the expense of some deformity, than those which have been tightly imprisoned in a Goodwin's splint. The true aim seems to be to apply just enough restraint to keep the parts in position, without increasing or originating inflammatory effusion among the tendons of the flexor or extensor muscles—though trouble in the former is by far the most frequent. We are aware that much of this is in accordance with the treatment laid down by Hamilton. Certainly the tendency has been to regard *all* the deformity following this fracture as caused by muscular action, and to endeavor to control the *pronator quadratus* by firm pressure with hard pads, and even to attempt to pry apart the radius and ulna by a ridge on the palmar splint. As Hamilton well says, this is the expedient of a mechanic rather than a surgeon.

Similar experiments on the dead subject also proved, that in a very oblique fracture of the radius we may get rotation of the head of the bone under the outer condyle, even though the fracture be complete. This results, probably, from the lower fragment pressing against and turning the upper with itself; while, at the same time, much displacement is prevented by the lateral apposition of the fractured surfaces. Rotation of the head of the radius, at best an obscure sign, is not, therefore, always a diagnostic mark that the bone is unbroken. Partial fracture, the separation of the inner articular surface of the radio-carpal articulation, or a stellate fracture of the same, may also exist, and confuse the diagnosis, if we rely upon rotation. We have seen two instances of these obscure injuries during the past year—where there was no deformity, no displacement, and no crepitus, but where pressure over the expanded articular extremity of the radius produced severe and constant pain—where the arm and hand were helpless, and the recovery was measured by weeks. These cases followed falls, and there was no swelling of the wrist, as in a sprain. For obvious reasons, such cases can scarcely ever be verified by an autopsy.

Rupture of the Tendon of the Quadriceps Extensor Femoris.

Mr. ——, 75 years of age, quite fleshy, fell upon some stone steps, and was unable to rise. When first seen, the left leg was flexed at the knee, and he could not extend it. The patella was in place and entire. A hollow was manifest just above the patella, about two inches in length, bounded by a firm muscular projection above. The fingers could plainly feel the articular surface of the condyles of the femur, when placed at the bottom of the depression. There was no pain, and the limb could be flexed or extended without any complaint. He was placed on his back, with the limb straight, and elevated about twenty-five degrees on a firm splint. The second day there was considerable serous effusion about the seat of injury, and a little tenderness. On the third day a blush of inflammation over the knee; no pain; tenderness the same. During a few days the effusion gradually shrunk and solidified. At the end of a week it was quite firm to the touch, and very little sensitive. There was some swelling. No pain during the whole treatment, except from irksomeness of position, or accidental pressure. The thigh was not compressed by a bandage, because it was thought that the retarding of the circulation in an old person might do more harm to the processes of repair than the partial pulling down of the retracted muscle could do good.

The process of union followed very exactly the course and results of Paget's experiments on the divided tendo achillis of rabbits. The health and constitution of the patient were excellent for his years.

At the end of a fortnight the limb was put in a starched bandage, with a ham splint, from the ankle to midway up the thigh, and laid down on the bed. At the end of three weeks he was allowed to sit up. In four weeks he used crutches freely. In six weeks he walked with a cane, and went down stairs. The bandage was gradually cut away, and entirely removed in seven weeks. In eight weeks he was in the street, and could walk without a cane, though cautioned not to do so. The swelling above the patella had settled down into a firm, insensible band, about two inches broad, and the leg could be firmly extended, and about one third flexed. The motion of the joint was free, and he was warned not to flex it suddenly.

The case is interesting on account of its comparative rarity, ruptures of other tendons and muscles being much more frequent, and also for the good result obtained by a patient so old and fleshy. There was only one bruise apparent after the injury. This was about two inches below the patella, on the fleshy mass of the anterior tibial muscle. It would seem probable that the patient fell with the leg flexed, and struck on this surface, and that the extensor muscles of the thigh, being affected with fatty degeneration, gave way at their junction with the tendon—where, Paget says, the rupture always occurs—and the patella was thus saved from fracture.

THE USE OF HEAT AND COLD APPLIED TO THE SYMPATHETIC NERVOUS SYSTEM.

[Concluded from page 234.]

THIS theory exhibits a unity of purpose among the organic forces of the body, in the presence of inflammations, that is in keeping with the perspective wisdom exhibited in all of the physiological functions. It exhibits all inflammatory processes, excepting those of a specific or malignant character, as having a direct recuperative tendency. It solves the problem of inflammation. Viewed in this light, inflammation is no longer primarily, as Cullen taught,* "a spasm of the extreme arteries supporting an increased action in the course of the same"; or, as Hunter taught,† "an increase of life, or an increased disposition to use with more violence the life which the machine or the part is in possession of"; or, as Alison‡ asserted, that it "consists essentially in a local increase of a vital property of attraction existing among the particles of the blood, and between them and the surrounding textures, and with which other vital properties are connected and simultaneously excited," but simply in an augmentation of the organic forces in the locality involved, and a proportional diminution of similar vitality in the rest of the body. Simple inflammation, then, always suggests reparation. The event to be the most dreaded in its progress is not so much a superabundance of vital force in the part affected, as the proportional diversion of the same from the rest of the body, especially from the secretory and excretory glands and organs. The secretion of a normal *quality* of nervous force is dependent in a great measure upon the completeness with which the secretory and excretory glands and organs perform their functions. If they fail to fulfil their office with a certain degree of integrity for want of a sufficient organic vitality, the blood inevitably becomes poisoned. If the *pabulum vitæ* becomes corrupted, then the nervous tissue can no longer elaborate from it a healthy secretion to operate the organic mechanism of the body, and the whole fabric rapidly goes to ruin.

In the treatment of inflammation, taking this view of the subject, three indications naturally arise,—1st, To diminish the flow of the *spiritus vitalis* to the part affected, if it be sufficient in volume to seriously impair the functions of the secretory and excretory glands and organs. 2d, To increase, if possible, the functions of those nervous centres that supply the secretory and excretory glands and organs with organic vitality. 3d, To husband, in the greatest possible degree, the organic forces, as they constitute the *vis medicatrix naturæ*, which must in all cases effect the cure if it takes place.

The first indication I fulfil by the application of the refrigerant dressing to the site of the nervous centres that distribute sympathetic and sensitive nerves to the tissue or organ that is involved in the inflammatory process; or, if possible, I isolate in its nervous connection, by such application, that portion from the rest of the body. To meet the second, I apply the hot dressing to the site of those nervous centres of the sympathetic system whose functions I would stimulate to the highest possible efficiency. To meet the third indication, I enjoin absolute rest of mind and body, in order to relieve the organic forces as much as possible of the burden of nutrition, that the greater part of their power may be expended in the processes of reparation and secretion. In the regimen as an auxiliary to rest, a dry, pure, rarefied atmosphere, with a uniformly high temperature, say 75° Fah., will tend greatly to diminish the nutritive function. Such an atmosphere contains much less oxygen, per cubic inch, than its opposite. The amount of oxygen being diminished by rarefaction to the *minimum* standard compatible with a normal maintenance of the organic functions, will diminish, of course, combustion in the tissues, and proportionally diminish the function of nutrition. Sufficient attention has not been given to this point, in my opinion, by therapeutists generally. If the function of nutrition be carried on with only a moderate activity in the tissues of the body in the presence of a formidable inflammatory action, the secretory and excretory glands and organs will almost invariably falter in their functions for want of a normal supply of nervous force to endow them with appropriate capabilities. As an auxiliary to obtain rest, opiates should be used freely if indicated.

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* "Cullen's First Lines."
† Hunter on the Blood, &c., pp. 334 and 335. London: 1793.
‡ Outlines of Pathology. Edinburgh: 1843.

Reparation of the injury that is the cause of the inflammatory action, whether it be the result of traumatic lesion or idiopathic congestion, and the maintenance of the functions of the secretory and excretory glands and organs, should absorb *all* of the organic forces of the body that can be directed to such purposes. The refrigerant and the hot dressing may be each applied, enclosed in India rubber bags or others composed of any flexible material. Such I formerly used, but latterly have laid them aside. I now apply the refrigerant dressing (ice or freezing mixtures) immediately in contact with the skin above the nervous centres that I wish to affect; and for the hot dressing I prefer napkins frequently wrung out of hot water to any other. The application of the cold dressing is at first a little disagreeable; but soon the patient not only tolerates it, but desires its application. The application of both the refrigerant and the hot dressing must be *constant* and *continued*, until the inflammatory action subsides. By a direct application of each dressing to the epidermis as advised, the effect of moisture applied to the part is superadded to that of sedatives and stimulation, which my experience has led me to regard as highly important. After proper control of the organic forces shall have been gained in the manner I propose, animal food (in the form of broths), and even stimulants, both diffusible and permanent, may be given in small quantities with the happiest results.

The new form of practice that I propose in this paper does not contain any new principle in therapeutics, but is only a modification of one of the oldest and most efficient embodied in medical science. Cold and heat have been used from time immemorial as therapeutical agents. Inflammatory processes occurring in external tissues of the body have been treated more successfully by the refrigerant and hot dressing than on any other plan. The practice that I advise differs from the old mode, only in this respect, that I apply the cold and hot dressing to the surface above the nervous centres that supply the inflamed tissue or organ with sympathetic and sensitive nerves, rather than to the diseased part itself. This principle I do not develop except in cases of inflammatory action occurring in internal tissues or organs of the body. The diseases to which I have successfully applied it are all inflammatory processes incidental to the cranial, cervical and thoracic regions, excepting those of a specific or malignant character. Inflammatory action occurring in the abdominal region, especially that involving the rectum and the urinary apparatus, may be modified by this mode of treatment, but in less degree.

The first case treated by myself on this new principle occurred in November, 1859. It was a case of double pneumonia. Arterial sedatives and alteratives had been freely used without avail. In the left lung the respiration had become bronchial, and the lower lobe of the right lung was seriously involved. The patient was delirious. I applied the refrigerant dressing (ice) to the site of the six upper dorsal ganglia of the sympathetic system, allowing it to extend backwards to the spinous processes of the vertebræ; to the site of the rest of the sympathetic ganglia in the cervical, dorsal and lumbar regions, and to corresponding portions of the spine I applied the hot dressing. The first effect that I perceived from the application was an improved respiratory action. The frequency of the pulse was soon diminished, and the patient became conscious. Under the effects of this treatment the patient rapidly recovered. The cold and hot dressing was continued upon the spinal region until expectoration was freely established. Napkins wrung out of cold water were finally substituted for the ice as a refrigerant dressing, to avoid extreme reaction. This point I always insist upon.

The good result following the treatment in this first instance, led me subsequently to employ it in certain diseases almost exclusively. Meningitis, iritis, pharyngitis, laryngitis, tonsillitis, diphtheritis, croup, pneumonia, bronchitis, pleurisy, pericarditis, and endocarditis, I have treated successfully.* In diphtheritis, I pursued for a long time the usual "tonic course" of treatment, but as nearly all my patients died under its effects, I at last substituted my new mode, with surprisingly happy results. The reason that I did not at first adopt it in diphtheritic disease, was, that I believed the disease to be of a specific or malignant character. In typhoid diseases, or in those complicated with a typhoid condition, excepting diphtheritis, I have had no experience with this treatment.

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* Numerous cases could be reported of each disease mentioned, excepting pericarditis and endocarditis, treated successfully on this new plan. In pericarditis, I have applied this new treatment to only one case, which eventuated favorably. I have at present a case of endocarditis under treatment, which promises a favorable result.

Before I proceed to give the *modus operandi* with this new mode of treatment, as I have applied it in different diseases, I will give a brief synopsis of the principal features in the anatomy of the sympathetic nervous system, for the purpose of a clearer exhibition of the principle involved.

In a general view, the sympathetic nervous system may be described as arranged in two principal divisions. The first division may be considered to include the ganglia seated on, or close to the cerebral and spinal nerves, with the filaments issuing from them; the second, to comprise the ganglia on the two main branches of the sympathetic, and on the branches in the visceral cavities. To the first belong the ophthalmic, otic and submaxillary ganglia on the divisions of the fifth nerve; and probably the ganglia on the glosso-pharyngeal and pneumogastric nerves, and on the posterior roots of the spinal nerves; for, from all these, fibres appear to originate, which in structure resemble those derived from the proper ganglia of the sympathetic, and are distributed to the same parts. To the second division belong the ganglia arranged in a continuous line along the sides of the vertebræ, with their connecting cords, which make up what have been usually called the trunks of the sympathetic nerve, and all the ganglia placed irregularly on the branches of the sympathetic distributed to the viscera. That each ganglion is an organ controlling certain functions in a definite locality within the body, is the opinion of some of our best physiologists.—(Vide Kirkes and Paget's Manual of Physiology, page 366.)

The ophthalmic ganglion distributes nerves to the globe of the eye; the otic, to the tympanum. The submaxillary ganglion supplies with nerves the side of the tongue, the submaxillary gland and Wharton's duct. The spheno-palatine or Meckel's ganglia supply with their nerves of distribution the mucous surface lining the nasal passages; and partially the mucous surface lining the passages within the cervical region. The ganglia seated upon the fifth and upon the glosso-pharyngeal and pneumo-gastric nerves, together with the carotid plexuses and their derivations, supply the meninges of the brain and that viscus itself. From the cervical ganglia, cords of communication descend to the superficial and deep cardiac plexuses. The six upper dorsal ganglia distribute nerves to the aorta, œsophagus and lungs. From the sixth, seventh, eighth, ninth and tenth thoracic ganglia, the great splanchnic nerves originate, which terminate in the semi-lunar ganglia. The last thoracic ganglia, through the third splanchnic nerves, and in common with the renal plexuses, distribute nerves to the kidneys. The lower lumber ganglia, in common with the termination of the aortic plexuses, forming the hypogastric plexuses, distribute nerves to the pelvic viscera. The ganglion impar of the coccyx distributes nerves to the rectum. The superficial and deep cardiac plexuses, together with the ganglionic tissue found in its own substance, distribute nerves to the heart.

From the ganglia seated upon the posterior roots of the spinal nerves, and from the great sympathetic trunks upon each side of the spine, those nerves probably arise that control the organic functions in the cutaneous system and muscular tissue of the striated variety. Upon reference to the minute anatomy of the parts (Vide Kölliker, CXIV. and XV., 1844–5; Volkmann, CXXVI.; Todd and Bowman, XXXIX.), it will be seen that quite a proportion of the nerves that arise from the spinal ganglia pass into the posterior roots of the spinal nerves and are distributed with them. Of the fibres derived from the great sympathetic trunks, some go direct to the viscera, the rest pass through the branches of communication that connect them with the anterior branches of the spinal nerves, and joining those spinal nerves, proceed with them to their respective seats of distribution. The spinal nerves supply the muscles of the striated variety, which are found in a considerable proportion near the periphery of the body in close proximity to the cutaneous system. Hence, those nerves of the sympathetic system that join the cerebro-spinal nerves, that supply the voluntary muscles, would naturally and probably be the ones that would supply those muscles and the tissues excentric to them.

In meningitis, iritis, pharyngitis, laryngitis, tonsillitis and diphtheritis, and in cases which exhibit an apoplectic tendency, I apply the refrigerant dressing to the site of the superior cervical ganglia[*] of the sympathetic nervous system, allowing it to extend backwards to the spinous processes of the vertebræ, that the sedative effect resulting therefrom may be experienced by that portion of the sympathetic system seated upon the posterior roots of the spinal nerves. In either of these diseases, when the inflammatory action is excessive, I allow the refrigerant dressing to extend downwards so as to cover over the site of the middle cervical ganglia and corresponding portions of the spinal ganglia of the same system. At the same time, I apply the hot dressing, by means of napkins wrung out of hot water, to the site of all the ganglia of the sympathetic system in the dorsal, lumbar and sacral regions. In an adult I usually apply the hot dressing, about four inches in width, to the surface on either side of the spinous processes of the vertebræ. In pseudo-membranous croup, I apply the refrigerant dressing to the three ganglia of the cervical region, and to the corresponding spinal ganglia of the sympathetic system; and the hot dressing the same as advised in meningitis. In pneumonia, bronchitis and pleurisy, I apply the refrigerant dressing to the site of the six upper dorsal ganglia of the sympathetic, and the corresponding spinal ganglia of the same system; and the hot dressing to the site of the cervical ganglia, the site of the six lower dorsal ganglia, the site of the lumbar and sacral ganglia, and to the corresponding spinal ganglia of the same system. In pericarditis and endocarditis, I apply the refrigerant dressing to the three cervical ganglia of the sympathetic, and to the sixth, seventh and eighth dorsal ganglia; and the hot dressing to the site of all the other sympathetic ganglia in the spinal region. In the last-named diseases the sedative impression seems to be transmitted to the superficial and deep cardiac plexuses, through the superior, middle and inferior cardiac nerves, and through the great splanchnic nerves. In inflammation of the kidneys I apply the refrigerant dressing to the site of the last thoracic ganglia of the sympathetic, and at the same time I apply the hot dressing to the site of all the ganglionic centres above, in the spinal region, belonging to the same system. In inflammatory conditions affecting one or more of the pelvic viscera, excepting the rectum, I apply the refrigerant dressing to the site of the lumbar ganglia of the sympathetic; and the hot dressing to the site of all the ganglionic centres above in the spinal region, belonging to the same system. In inflammation of the rectum, I apply the refrigerant dressing to the site of the ganglion impar of the sympathetic; and the hot dressing to the site of all the ganglionic centres above, in the spinal region, belonging to the same system. In exanthematous diseases, and in other morbid conditions where a general stimulant effect is desired, I apply the hot dressing to the site of all the ganglionic centres of the sympathetic system. Any organ in the body may be stimulated in its organic functions by the application of the hot dressing to the site of those ganglionic centres that supply it with sympathetic nerves. The effect of stimulation may also be produced by the frequent application and withdrawal of the refrigerant dressing to the site of the nervous centres by which the organ is supplied with sympathetic nerves.

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[*] The much talked of experiment of Bernard, in which he found that on extirpating a ganglion of the sympathetic nerve, or dividing the filaments proceeding thence, the organic action in the part supplied with nerves by the ganglion or divided filaments was heightened; and that on applying galvanic stimulus to the divided nerve, the increased action subsided; and that by dividing the nerves connecting the part with the cerebro-spinal system an exactly opposite effect took place, led me to try the effect of the refrigerant dressing applied to the spine alone, accompanied with the hot dressing applied to corresponding portions of the sympathetic system. The result of the trial (I applied it in four cases of thoracic inflammation) was a failure. The same cases, when treated with the refrigerant and hot dressing as I advise, recovered immediately.

This determines conclusively that the reactionary effect following, is greater, or at least equal to the primary sedative effect, unless the sedative agent be gradually diminished in force as it is withdrawn, which will prevent it from taking place; and it also indicates that an increase of the inflammatory action will ensue, if in the presence of acute inflammation in any organ the refrigerant dressing is applied as advised, and then removed abruptly before it has subsided.

In cases where the inflammatory action is slight, dry cupping, or the application of counter-irritation over the ganglionic centres of the sympathetic, I have found beneficial. Where diaphoresis is desired, and where a general stimulant impression on the cutaneous system is indicated as the best means of obtaining it, the hot dressing applied to the site of all the ganglionic centres of the sympathetic in the spinal region, will be found to answer an admirable purpose.

With this mode of treatment—to produce a general alterative effect—I use the muriate of ammonia in place of the mercurial. Opiates I use freely, when indicated. A dry, pure atmosphere, of a uniformly high temperature, say 75° Fah., is in all cases to be desired. When the inflammatory action is purely cranial or cranio-cervical, and is accompanied with debility of the motor nerves of the cerebro-spinal system, I invariably use preparations of nux vomica with advantage.

What I have written comprises an epitome of my experience in this new mode of treating disease, which I believe will prove, if properly developed, to be an auxiliary to those means already adopted, by which medical science alleviates pain and prolongs human life.

Bridport, Vt., March 20th, 1864.

SPOTTED FEVER.

[Communicated for the Boston Medical and Surgical Journal.]

In Dr. Cornell's letter (Journal of April 14th) he says:—"All agree that it [spotted fever] is a malignant disease of the blood." Dr. Cornell himself evidently thinks it is "malignant typhus fever, modified." Dr. Darrach comprises his *treatment* in "three remedies—venesection, brandy, and quinine." In one case, he says, "the patient revived, after he was considered moribund, by being bled." Dr. Condie "would as soon think of cutting off the patient's head as of bleeding, and did not find venous congestion in any case."

It is hardly to be supposed there should be such discrepancy in the views of intelligent observers of the *same* disease. That cerebro-spinal meningitis may occur under decided and various modifications is very probable. But should we not look for some specific or pathognomonic symptom which might identify the so-called spotted fever? I have seen but one case, and even that I did not feel quite sure of; but from the notices I have seen of the epidemic in question, I conclude my little patient's disease was probably the same. In her case, opisthotonos was a strongly-marked feature. Though the skin, in her case, exhibited no *spots*, and in the first stages was apparently normal in color and *feel*, yet in the latter stages it was *dingy* and *doughy*. In the reported cases I have read, I think a large proportion of them contained more or less allusion to tenderness of the cervical portion of the spine, or to spasmodic curvature. Many of the cases certainly answered favorably to malignant typhus.

In regard to treatment, if I might safely judge from the single case I have seen and treated, I should say the very moderate use of alterants—I may as well out with it and say *calomel*—with diaphoretics, mainly Dover's powder, and rubefacients, constitute the best treatment—being very far from intending to intimate that I suppose this, or any other method of treatment, would have been successful in many of the cases reported as spotted fever.

Dr. Knox, of Burlington, informs me that he has made a *post mortem* in one case only—but in this he found exudation, of some consistence, adherent on the external surface of the pia mater, where it falls into the folds of the cerebellum.

Does not this suggest the inquiry—what *may be* the relations of diphtheria to cerebro-spinal meningitis; the former epidemic involving *mucous* tissue, and the latter affecting *serous* tissue, and following so closely? *Post-mortem* examination is the only source from which we may expect much light on these important inquiries.

St. Albans, Vt., April 21st, 1864. J. L. CHANDLER.

P. S.—I have been informed of two or three recent fatal cases, among children, in this vicinity, where the lungs seemed to be the principal laboring organs, but complicated with unusual symptoms of *cerebral* lesion. J. L. C.

OUT-PATIENTS TREATED AT THE MASSACHUSETTS GEN. HOSPITAL DURING THE YEAR 1863.

AMERICANS,	2008	FOREIGNERS,	3206	5214
Male adults,	1303	Female adults,	2210	
" minors,	886	" minors,	815	5214

MEDICAL PATIENTS, 3774.

Diseases.

Abscess,	14	Caries,	5
Albuminuria,	16	Catamenia, scanty,	56
Alcoholismus,	1	" irregular,	24
Amenorrhœa,	99	Catarrh, nasal,	20
Anorexia,	132	" pharyngeal,	34
Asthma,	16	" of vulva,	1
Ascarides,	9	Chorea,	12
Anæmia,	28	Cicatrix,	2
Abortion, effects of,	1	Cholera infantum,	20
Blenorrhœa,	3	Constipation,	70
Burn,	1	Consumption,	214
Brain, organic disease of,	2	Contusions,	9
Bronchitis, acute,	365	Contracted hand,	1
" chronic,	207	" finger,	1
Bladder, irritable,	4	Corneitis,	1
Bursa, inflamed,	1	Chilblains,	1
Bowels, irregular,	2	Conjunctivitis,	2

Deafness,	7
Debility,	257
Delirium tremens,	1
Diarrhœa, acute,	105
" chronic,	12
Dogbite,	1
Dropsy,	26
Diabetes,	1
Diphtheria,	3
Disease, imaginary,	2
Dysentery,	9
Dysmenorrhœa,	8
Dyspepsia,	266
Dysphagia,	1
Dyspnœa,	6
Dysuria,	14
Effects of tobacco,	1
" sunstroke,	1
Empyema,	2
Eneuresis,	1
Epilepsy,	30
Epistaxis,	3
Felon,	1
Fever, irritative,	2
" simple,	5
" intermittent,	9
" typhoid,	1
Fistula ani,	1
Flatulence,	21
Fœtid breath,	4
Foreign body in lungs,	1
" " nose,	1
Gangrene of lungs,	1
Glands, enlarged,	1
Gleet,	1
Goitre,	3
Gonorrhœa,	6
Gravel,	1
Hay asthma,	1
Headache,	118
Heart, disease of,	19
Hæmoptysis,	22
Hæmorrhage, uterine,	4
Hæmorrhoids,	15
Hernia,	7
Hip disease,	3
Hoarseness,	4
Hydrocele,	7
Hydrocephalus,	1
Hysteria,	1
Inability to speak,	1
Inflamed glands,	2
" knee,	1

Insanity,	2
Jaundice,	8
Kidneys, disease of,	1
Laryngitis,	10
Lead disease,	3
Leucorrhœa,	69
Liver, disordered,	9
" enlarged,	1
Local pain, not otherwise specified,	227
Local disease " "	29
" inflammation, "	62
Marasmus,	3
Menorrhagia,	43
Mental deficiency,	1
Nævus,	1
Nephritis,	1
Nervous symptoms,	12
Nausea,	23
Neuralgia,	78
Obesity,	1
Œdema, local,	1
Ophthalmia,	1
Orchitis,	2
Otorrhœa,	3
Ozœna,	8
Palpitation,	66
Paralysis,	24
" facial,	1
Pleurisy, acute,	10
" chronic,	7
Pregnancy,	16
Pertussis,	11
Polypus uteri,	1
Prolapsus ani,	2
" uteri,	3
" vaginæ,	1
Pleurodynia,	2
Pneumonia,	1
Rickets,	1
Rheumatic gout,	2
Rheumatism, acute,	1
" chronic,	51
" subacute,	43
Sciatica,	1
Scrofula,	8
Skin, disease of,	832
Sore throat,	25
Spine, disease of,	5
Stiff neck,	2
Stammering,	1
Spermatorrhœa,	8
Stomatitis,	12

Sprain,	3
Syphilis, primary,	9
" secondary,	35
" hereditary,	2
Tænia,	2
Teething,	3
Testis, swelled,	1
Tinnitus,	1
Tonsillitis,	6
Tonsils, enlarged,	4
Tumor of epigastrium,	1
" " neck,	1
" " abdomen,	1
" " ribs,	1
" external,	1
Ulcer of ankle,	1
" throat,	1
" toes,	1
Ulcer of leg,	1
" chronic,	2
" varicose,	1
Urine, incontinence of,	4
Uterus, anteflexion of,	3
" displacement of,	1
" retroversion of,	1
Uvula, elongated,	3
Vaginitis,	2
Varicose veins,	3
Vertigo,	32
Vomiting,	9
Whooping cough,	2
Wound of hand,	2
Wry neck,	1
Not recorded,	2
	3774

SURGICAL PATIENTS, 1440.

Diseases, Injuries, &c.

Abscess,	104
Amputation,	4
Anchylosis,	1
Balanitis,	1
Bite,	6
Bruise,	38
Burns,	9
Bursa,	1
Cancer,	6
Carbuncle,	8
Caries,	1
Cicatrix,	2
Cleft palate,	1
Convulsions,	1
Cyst,	4
Cystitis,	10
Debility,	1
Dislocations,	8
Disease of ankle,	25
" " anus,	7
" " arm,	34
" " axilla,	2
" " back,	9
" " breast,	9
" " cheek,	2
" " chest,	3
" " clavicle,	1
" " ear,	24
" " elbow,	8
" " eye,	26
" " eyelid,	1
" " face,	5
Disease of finger,	50
" " foot,	33
" " glands,	3
" " groin,	3
" " hand,	43
" " head,	14
" " heart,	1
" " hip,	60
" " jaw,	7
" " knee,	42
" " leg,	36
" " lip,	14
" " mouth,	10
" " nail,	3
" " neck,	33
" " nipple,	1
" " nose,	16
" " œsophagus,	1
" " prepuce,	2
" " prostate,	1
" " rectum,	4
" " scalp,	5
" " scrotum,	1
" " shoulder,	20
" " side,	8
" " skin,	42
" " spine,	30
" " tendon,	5
" " testis,	3
" " thigh,	1
" " throat,	19
" " toe,	12

Disease of tongue,	**4**	**Orchitis,**	**3**
" " uterus,	**3**	**Ozœna,**	**1**
" " uvula,	**2**	**Paralysis,**	**10**
" " wrist,	**15**	**Periostitis,**	**3**
Epididymitis,	**2**	**Phymosis,**	**2**
Epulis,	**1**	**Polypus,**	**2**
Felon,	**63**	**Rachitis,**	**6**
Fistula,	**3**	**Rheumatism,**	**2**
Fracture,	**44**	**Scrofula,**	**48**
Frostbite,	**1**	**Sciatica,**	**1**
Ganglion,	**1**	**Sprain,**	**13**
Goitre,	**1**	**Stricture,**	**3**
Gonorrhœa,	**15**	**Synovitis,**	**3**
Gout,	**1**	**Syphilis,**	**33**
Hæmaturia,	**1**	**Talipes,**	**2**
Hæmorrhoids,	**6**	**Tonsillitis,**	**12**
Hernia,	**18**	**Torticollis,**	**1**
Hydrocele,	**12**	**Tumors,**	**32**
Injuries,	**4**	**Ulcers,**	**88**
Iritis,	**1**	**Varicose veins,**	**13**
Lupus,	**1**	**Wart,**	**1**
Necrosis,	**16**	**Wen,**	**6**
Neuralgia,	**4**	**Wounds,**	**28**
Nævus,	**4**	**" gunshot,**	**5**
Odontalgia,	**7**		
Œdema,	**4**		**1440**

S. L. Abbot, M.D., *Physician to Out-patients.*

ON THE VOMITING OF PREGNANCY.

By Professor Gustav Braun, Vienna.

During pregnancy various disorders connected with the stomach manifest themselves, which may affect either its sensations or its functions. The anomalies of sensation manifest themselves as mere repugnance to ordinary articles of food, especially of what was previously preferred, sometimes by longings after unsavory or innutritious substances. These manifestations, depending upon abnormal innervation of the vagus, are of no importance. It is different in regard to actual derangements of function, which show themselves in the form of loss of appetite, pressure in the gastric region, spasms of the œsophagus, retching and vomiting. Vomiting is sometimes one of the most obstinate and important manifestations of pregnancy, as it may impair the health of those suffering from it, or may cause an interruption to the course of the pregnancy.

The emesis consists sometimes in mere retching or in actual vomiting; and these manifestations may reach a high degree and recur frequently without causing any real mischief. We are often amazed to see women, who throughout the whole course of their pregnancy, every time they have eaten anything, are attacked sometimes earlier, sometimes later, with painful retching and vomiting, not only by day but by night, and yet do not suffer much in their general health. In some cases the vomiting is preceded neither by pain nor feeling of pressure in the precordia; in others the uneasiness in the gastric region is permanent, the mouth becomes dry, the skin hot, the pulse frequent, and emaciation follows. Not unfrequently derangements of the cerebral functions show themselves, sometimes in the form of hallucinations, sometimes of violent headache, and occasionally a comatose condition supervenes, which is in the highest degree dangerous to life.

In the earliest period of pregnancy vomiting is pretty frequent, and some women suffer from it immediately after conception; whilst in many women no vomiting occurs during the whole course of pregnancy. If the vomiting sets in immediately after conception it may continue during the whole of pregnancy till delivery has actually taken place. Vomiting usually ceases on the expulsion of the child, and no longer annoys women who have been delivered. In some cases, though these are of rarer occurrence, the vomiting appears in the last three months of pregnancy, and may determine very unfortunate consequences. The vomiting which occurs during labor depends upon repletion of the stomach, a peculiar severity of the pains, and though the manifestations it occasions are painful, they are not dangerous.

Very different causes have been assigned for this vomiting, often obstinate and incapable of being arrested; thus Bretonneau ascribed it to a spasmodic rigidity of the womb which did not admit of the dilation necessitated by the increasing volume of the fœtus; Negrier thought it was the result of an inflammatory irritation of the cervix sympathetically affecting the stomach. Kiwisch sought the cause of the vomiting in an unusual susceptibility of the nerves of the stomach, and considered that it was in close connection with the chlorotic condition of the blood which is frequent in pregnant women. Frierichs directed attention to the coincidence of vomiting with albuminuria and uræmia. Clay has referred to an inflammatory condition of the cervix and os uteri as the cause of vomiting; while René Briau thinks it is due to retroversion of the uterus in the third month of pregnancy. Hohl succeeded in one case in discovering the cause of violent vomiting to be retroversion of the uterus at the fourth month of pregnancy.

The vomiting which appears late in pregnancy, especially during the ninth lunar month, is usually the result of the pressure which the uterus exerts on the liver or stomach, and it commonly disappears when the uterus sinks.

Virchow has directed attention to the circumstance that in pregnant women who endeavor to preserve a slender figure by the use of stays the portion of the liver lying below the line of application of the pressure is compressed between it and the ascending uterus, so that the gall-bladder may be compressed, and by the tension of the bile ducts an intense jaundice be produced.

The vomiting of pregnant women may be associated with or mistaken for the most various diseases of the chylopoietic viscera, as with acute or chronic gastric catarrh, with a perforating gastric ulcer, carcinoma of the stomach, or perityphlitis.

Acute gastric catarrh is distinguished from the vomiting of pregnancy by its longer duration, and the disinclination for food; and chronic gastric catarrh is distinguished by the character of the matter vomited, which mostly contains clots of blood. Perforating ulcer of the stomach is characterized by its almost invariably slow development, by the gastric pain and bloody vomiting. Cancer of the stomach can only be diagnosed with certainty when a hard swelling connected with the stomach can be clearly made out, and when it can be distinguished from swellings of neighboring organs, accumulations of fæces in the transverse colon, tumors of the liver or of the omentum. The circumscribed, irregular, movable or immovable tumor which cancer gives rise to is almost without exception painful on pressure and even without it, and frequently there dart from it burning lancinating pains which extend to the back. The vomiting which occurs spontaneously or after meals consists at first of watery or slimy matters; later in the disease it resembles coffee grounds or chocolate, appearances which sufficiently distinguish it from the matters vomited by pregnant women. In perityphlitis there is a roundish, uniformly hard swelling, tender on pressure, which at first lies deep in the right iliac fossa; during inspiration and expiration the abdominal parietes move over it. If the cœcum is empty it is often necessary to press the abdominal wall deeply in, in order to recognize the swelling, and the percussion note is clear over it as the cœcum containing air lies in front of it. It is only in cases where the swelling reaches the anterior abdominal walls that a certain diagnosis is possible, and that this cause of obstinate vomiting can be recognized.

Difficult as it often is, in the case of those suffering from gastric symptoms, to determine whether these depend upon organic lesions, or are merely sympathetic phenomena, we are yet justified in ascribing them to the former, when they have existed for some time before the beginning of pregnancy; when the appearance of the tongue deviates considerably from its normal characters; when there is fixed pain, increased on pressure, in the precordia; when emaciation is progressive, or constant fever sets in. Even suppose we are so fortunate as to be able to make a certain diagnosis, little is often gained, as the treatment is only too often without result. Especially the sympathetic symptoms induced by pregnancy often present the most obstinate resistance and defy the resources of art. A cure not unfrequently takes place on the spontaneous occurrence of abortion; and cases have been published in which death of the fœtus without its simultaneous expulsion has been observed, and where symptoms which had previously resisted all treatment immediately disappeared. In some cases death has taken place in spite of the occurrence of abortion; Moreau has observed three cases with a fatal termination.

The treatment of the vomiting of pregnancy is not always crowned with satisfactory results, as indeed the long list of the most various remedies recommended sufficiently proves. The heightened sensitiveness of the stomach renders necessary easily digestible food, such as cold roast poultry, venison, and underdone beef. Good results are generally obtained from the use of seltzer and other aërated waters, and mild or even drastic purgatives; but the best effect is to be expected from bitter, tonic, antispasmodic remedies. Among these may be mentioned calamus, tincture of ipecacuanha, orange flower water, and assafœtida. Among drinks may be mentioned good old wines, champagne and coffee. Less favorable results are to be expected from opium, morphia, and castoreum. Hohl recommends, when the vomiting depends upon increased secretion of bile, and this is not occasioned by pressure on the liver, the use of bicarbonate of soda and tincture of nux vomica. Where there is inflammatory irritation of the cervix, Negrier thinks good is done by the application of leeches to the vaginal portion; and Bretonneau endeavored to overcome spasmodic rigidity of the uterus by the application of belladonna ointment. Moriceau thought benefit was derived from the application of a large derivatory to the region of the stomach. Simpson speedily cured a severe case by inhalation of opium. Krause recommends that some lukewarm gruel or very weak green tea should be always kept in readiness, and that some cups of it should be taken quickly in order to provide material for the speedy evacuation of the stomach; he also found creosote combined with steel act very efficaciously.

Ferrand had a satisfactory result in a case of obstinate vomiting, where he employed moxas, and in another where he applied Vienna paste; in the second case, however, chloroform and iodine were also employed. In cases of the kind under consideration, Corvisart, Baudot, Gentles and others recommend pepsine. They give ten grains of it once a day, or a teaspoonful of the liquor pepticus thrice daily, immediately before meals. Henoch recommends, when vomiting during pregnancy is very obstinate, the use of creosote. In three cases where other means had proved useless, he obtained a cure by means of it; in one case the vomiting ceased after the first dose, in another it was not checked for a month.

From the fear that from the continual vomiting a fatal result might occur, it has been proposed that abortion or premature labor should be artificially induced. Opinions are not unanimous as to the propriety of this proceeding. Cazeaux is opposed to it, because no special time can be fixed when the abortion should be brought about. Villeneuve is in favor of the induction of abortion when the life of the mother or child is seriously endangered. Busch considers abortion admissible in none but extreme cases. Hohl objects to the induction of abortion, because the most severe cases of vomiting very seldom end fatally. Churchill and Lee have by this means obtained very satisfactory results. C. Braun trusts to the expectant method, and recommends abortion only in cases where the life of the mother is seriously endangered.

In the few cases where vomiting depends upon retroversion of the pregnant uterus, it may, though having previously resisted all treatment, be speedily and permanently cured by replacing the womb in its normal position.—*Edinburgh Medical Journal.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURDSAY, APRIL 28, 1864.

The Fee-table.—We would again call the attention of our city readers to the necessity of the change in the fee-table we urged at the beginning of the year. If any one doubted the expediency of such action then, we feel sure that he will recognize its importance at the present time, when the necessaries of life are increasing so astonishingly in value. If there was any reason for raising the scale of prices in 1852 on the ground then stated by the committee, "that since the last fee-table was adopted, the expenses and style of living have increased very much," there can scarcely be but one opinion with regard to the subject in 1864. The scale then adopted as adequate to the support and dignity of the profession certainly falls far short of representing that standard to-day, and fortunately at no time would the desired change be so little felt or objected to by the community as at present, when all classes of patients are not only demanding and obtaining more for their own services and labors, but are daily accustoming themselves to pay more for the use of those of others. We have always been far too modest in our own estimate of the value of our services, and, in order to obtain anything like the competency which follows a successful career in the law, have been obliged to do at least twice the amount of work. Hence the necessity of continuing active practice far into old age, and the non-attainment of that leisure for study and the record of experience, so essential to the future rank of medicine in this country. We may place what value we please upon our labor, and certainly unless the profession considers its own services as worthy of high reward as those of any other, it can hardly expect the public to recognize their importance.

The annual meeting of the Boston Medical Association will be held next week, and a fitting opportunity will then occur for a full discussion of this matter. We have heard but one opinion from all with whom we have spoken on the subject, and some, who at first thought sufficient latitude was allowed under the present table, are now convinced of the necessity of its revision, so far at least as relates to the ordinary daily visit. It will not be necessary to repeat here what we have so lately expressed in relation to this point, nor do we care to suggest any specific action. We trust that there will be a full attendance at the meeting, and that whatever course is adopted may be considered binding upon every member of the Association.

OUR readers may be struck, perhaps, with the similarity in the new method of treating disease advised by Dr. Blanchard in the interesting article concluded in the present number, and that of Dr. Chapman, reprinted from the *Medical Times and Gazette* in our issue of March 17th. The result of their investigations, carried on independently of each other, should commend them to the attention of all who believe in progressive medicine. Dr. Blanchard, in a letter to the Editors, says:—"Dr. Chapman's mode of treatment differs from mine in that he applies the cold dressing to the spine and the hot dressing to the sympathetic centres. This I have tried in inflammatory (active) diseases and it has failed me. Yet it would be in keeping with the theory I propose, to have the effect produced upon the motor portion of the cerebro-spinal system by the appliances of heat and cold as he describes. I have never applied my principle of treatment to nervous diseases, or even to those of a chronic character. In this method of treatment I am quite certain the *priority* belongs to me. Yet, after all, I am glad of Dr. Chapman's announcement; it will do something towards corroborating mine. We are all brothers, or should be, with one duty, one inheritance, and one glory."

AT the annual meeting of the Middlesex South District Medical Society, held on the 20th inst., at Waltham, the following officers were elected for the ensuing year:—*President*, Theodore Kittredge, M.D., of Waltham. *Vice President*, Enos Hoyt, M.D., of Framingham. *Secretary*, Francis H. Brown, M.D., of Cambridge. *Treasurer*, F. R. C. Kittredge, M.D., of Waltham. *Supervisors*, Drs. J. L. Sullivan, Jefferson Pratt, Anson Hooker. *Censors*, Drs. M. Wyman, H. H. Pillsbury, Alfred Hosmer. *Commissioner on Trials*, W. W. Wellington, M.D. *Councillors*, Drs. C. H. Allen, Enos Hoyt, J. B. Taylor, A. Mason, Henry Cowles, A. B. Bancroft, A. C. Livermore, Howland Holmes, L. B. Morse, Anson Hooker, R. S. Warren.

FRANCIS H. BROWN, *Secretary.*

THE following extract is from the London *Reader*, a journal which contains the very latest scientific news from all parts of the world, and which embraces among its contributors the most celebrated literary and scientific men in England. The honorable course it has pursued towards our country in its criticisms is exceptional and highly gratifying.

"At a meeting of the Anthropological Society, March 1, the following paper, on 'The Origin of Human Races, and the Antiquity of Man, deduced from the Theory of Natural Selection,' was read by Alfred R. Wallace, F.L.S. After illustrating the mode of action of Natural Selection in the animal world, it was shown that its efficiency depended entirely on the isolation and self-dependence of animals. A wounded or sick animal died, because its fellows neither brought it food nor protected it against its enemies. In man this was different. In even the lowest races sympathetic feelings existed; the sick were at least fed and protected. Again, animals must perform *all* the acts necessary for their safety and preservation. A deficiency in any one generally led to destruction. In man, on the contrary, there was division of labor; the less swift, the less strong, the less gifted with sight or hearing, did not die, but were useful for some inferior occupations. So man, not using natural, but artificial weapons, could make skill a substitute for strength and agility. These causes combined, removed man from the action of 'Natural Selection' as regarded his bodily form, and transferred its action to his mind. Intellectual faculties, social and sympathetic feelings, sense of right and justice, diminution of the combative and destructive faculties, would all add to man's well-being. The communities, therefore, in which they predominated would increase, and would tide over dangers and difficulties that would lead to the extinction of inferior races. It was agreed, therefore, that from this epoch man's physical form would be unchanged, except as regards very trifling and accidental variations, and that we must conclude that the greater differences of race we now see originated in that early epoch when his mind was not sufficiently advanced to remove the action of 'natural selection' from his body. This harmonizes the conflicting views of anthropologists by showing why races have been so long unchanged and apparently unchangeable, and still renders it possible that, at a still earlier period, all might have sprung from a common stock. The bearing of these views on the antiquity and dignity of man was then adverted to, and, in conclusion, it was shown what bright prospects they held out for the future of the human race."

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, April 23d, 1864.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - - -	52	40	92
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.7	37.9	79.6
Average corrected to increased population - - - - -	00	00	87.49
Death of persons above 90 - - - - - - - - -	0	0	0

Pamphlets Received.—Address delivered before the Alumni Association of the College of Physicians and Surgeons, New York, at the Spring Commencement, March 10, 1864. By J. Mauran, A.M., M.D., &c., Providence, R. I.—Twenty-ninth Annual Report of the Board of Trustees and Officers of the Central Ohio Lunatic Asylum, for the year 1863.—The Army Ration—How to diminish its Weight and Bulk, &c. By E. N. Horsford, late Rumford Professor in Harvard University.

Deaths in Boston for the week ending Saturday noon, April 23d, 92. Males, 52—Females, 40.—Accident, 1—anæmia, 1—apoplexy, 1—inflammation of the bowels, 1—congestion of the brain, 2—disease of the brain, 3—bronchitis, 1—cancer, 2—consumption, 14—convulsions, 3—croup, 6—cystitis, 1—debility, 1—diabetes mellitus, 1—diarrhœa, 1—diphtheria, 4—dropsy, 5—dropsy of the brain, 2—epilepsy, 2—scarlet fever, 3—typhoid fever, 1—gastritis, 1—disease of the heart, 2—intemperance, 1—disease of the kidneys, 1—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 4—marasmus, 2—necrosis of foot, 1—œdema of glottis, 1—old age, 2—ophthalmia, 1—phlegmon, 1—pleurisy, 1—premature birth, 1—puerperal disease, 1—scalded, 1—scrofula, 1—smallpox, 5—tumor, 1—unknown, 6.

Under 5 years of age, 33—between 5 and 20 years, 12—between 20 and 40 years, 21—between 40 and 60 years, 17—above 60 years, 9. Born in the United States, 62—Ireland, 20—other places, 10.